

What is claimed is:

1. A communication terminal apparatus comprising:
- 5 a first modulator/demodulator that applies modulation/demodulation processing on a voice communication signal;
- a second modulator/demodulator that applies modulation/demodulation processing on a high-speed data communication signal;
- 10 a communication type determinator that determines a type of communication based on input information; and
- a changeover controller that selects which of the first modulator/demodulator or the second modulator/demodulator is used to communicate based on a determined type of communication.
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2. The communication terminal apparatus according to claim 1, wherein the first modulator/demodulator applies modulation/demodulation processing on a voice communication signal transmitted/received based on a
- 20 TDMA system and the second modulator/demodulator applies modulation/demodulation processing on a high-speed data communication signal transmitted/received based on a CDMA system.
- 25 3. The communication terminal apparatus according to claim 1, wherein the first modulator/demodulator applies modulation/demodulation processing on a voice communication signal transmitted/received based on a

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CDMA system and the second modulator/demodulator applies modulation/demodulation processing on a high-speed data communication signal transmitted/received based on an HDR system.

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4. The communication terminal apparatus according to claim 1, wherein the communication type determinator determines the type of communication based on how the terminal is connected.

5. The communication terminal apparatus according to claim 4, wherein in the case where an external apparatus is connected to the terminal, the communication type determinator determines that the communication is a high-speed data communication.

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6. The communication terminal apparatus according to claim 1, wherein the communication type determinator determines the type of communication based on information of a control signal demodulated by the first modulator/demodulator or the second modulator/demodulator.

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7. The communication terminal apparatus according to claim 1, further comprising a third modulator/demodulator that applies modulation/demodulation processing to a control signal.

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8. The communication terminal apparatus according to claim 7, wherein the communication type determinator determines the type of communication based on information of a control signal demodulated by the third
5 modulator/demodulator.

9. A base station apparatus comprising:

10 a first modulator/demodulator that applies modulation/demodulation processing on a voice communication signal;

a second modulator/demodulator that applies modulation/demodulation processing on a high-speed data communication signal;

15 a third modulator/demodulator that applies modulation/demodulation processing on a control signal;

a communication type determinator that determines a type of communication based on input information; and

20 a changeover controller that selects which of the first modulator/demodulator or the second modulator/demodulator is used to communicate based on a determined type of communication.

10. The base station apparatus according to claim 9, wherein the first modulator/demodulator applies
25 modulation/demodulation processing on a voice communication signal transmitted/received based on a TDMA system and the second modulator/demodulator applies modulation/demodulation processing on a high-speed data

communication signal transmitted/received based on a CDMA system.

11. The base station apparatus according to claim 9,
5 wherein the first modulator/demodulator applies modulation/demodulation processing on a voice communication signal transmitted/received based on a CDMA system and the second modulator/demodulator applies modulation/demodulation processing on a high-speed data
10 communication signal transmitted/received based on an HDR system.

12. The base station apparatus according to claim 9,
wherein the communication type determinator determines
15 the type of communication based on information of a control signal demodulated by the third modulator/demodulator.

13. A radio communication method comprising:
20 a first modulation/demodulation step of applying modulation/demodulation processing on a voice communication signal;
a second modulation/demodulation step of applying modulation/demodulation processing on a high-speed data
25 communication signal;
a communication type determination step of determining a type of a communication based on input information; and

a changeover controlling step of selecting which of the first modulation/demodulation step or the second modulation/demodulation step is used to communicate based on a determined type of communication.

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14. The radio communication method according to claim 13, wherein in the first modulation/demodulation step, modulation/demodulation processing is applied on a voice communication signal transmitted/received based on a TDMA system and in the second modulation/demodulation step, modulation/demodulation processing is applied on a high-speed data communication signal transmitted/received based on a CDMA system.

15. The radio communication method according to claim 13, wherein in the first modulation/demodulation step, modulation/demodulation processing is applied on a voice communication signal transmitted/received based on a CDMA system and in the second modulation/demodulation step, modulation/demodulation processing is applied on a high-speed data communication signal transmitted/received based on an HDR system.